

**Patent Claims**

- 1. Purified polypeptide, characterised in that**
  - the amino acid sequence of the polypeptide is essentially identical to the amino acid sequence of SEQ ID NO:1 and/or SEQ ID NO:3, and
  - the polypeptide binds the low density lipoproteins (LDL) and/or oxidized LDL (oxLDL), in particular LDL cholesterol and/or oxidized LDL cholesterol (oxLDL cholesterol).
  
- 2. Purified polypeptide according to claim 1, characterised in that**  
the binding of the polypeptide or of the fragments of the polypeptide to low density lipoproteins (LDL) and very low density lipoproteins (VLDL), and to the respective oxidized forms (ox LDL and oxVLDL) is stronger than the binding to high density lipoproteins (HDL).
  
- 3. Polypeptide according to one of the preceding claims, characterised in that** the polypeptide or fragments of the polypeptide and the low density lipoproteins (LDL) and/or oxidized low density lipoproteins (oxLDL) that occur in human and animal bodies have complementary carbohydrate structures.
  
- 4. Purified polypeptide according to one of the preceding claims, characterised in that** the polypeptide is an antibody or a functional fragment thereof.

5. Purified polypeptide according to one of the preceding claims, **characterised in that** the polypeptide is a functional fragment of one of the following groups comprising  $V_L$ ,  $V_H$ ,  $F_v$ ,  $FC$ ,  $Fab$ ,  $Fab'$ , and  $F(ab')_2$ .
6. Purified polypeptide according to claim 5, **characterised in that** the amino acid sequence of the variable region of the light chain ( $V_L$ ) is essentially identical to SEQ ID NO:1 and/or the amino acid sequence of the variable region of the heavy chain ( $V_H$ ) is essentially identical to SEQ ID NO:3.
7. Purified polypeptide according to claim 5, **characterised in that** the nucleic acid sequence of the variable region of the light chain ( $V_L$ ) is essentially identical to SEQ ID NO:2 and/or the nucleic acid sequence of the variable region of the heavy chain ( $V_H$ ) is essentially identical to SEQ ID NO:4.
8. Purified polypeptide according to claim 5, **characterised in that** said fragments contain a fragment of the amino acid sequence of SEQ ID NO:1 or of SEQ ID NO:3.
- 10.9. Purified polypeptide according to claim 5, **characterised in that** said fragments contain a sequence fragment that is essentially identical to the amino acid sequence of SEQ ID NO:1 or SEQ ID NO:3.
11. Purified polypeptide according to claim 1, **characterised in that** the polypeptide is essentially identical to the amino acid sequence of SEQ ID NO:1.

12. Purified polypeptide according to claim 1, **characterised in that** the polypeptide is essentially identical to the amino acid sequence of SEQ ID NO:3.
13. Purified polypeptide according to one of claims 1 and 3, **characterised in that** the polypeptide contains nucleic acid sequences that are essentially identical to the nucleotides 67-99 (CDR1), 145-165 (CDR2) and 262-288 (CDR3) of SEQ ID NO:2.
13. Purified polypeptide according to one of claims 1 and 3, **characterised in that** the polypeptide contains nucleic acid sequences that are essentially identical to the nucleotides 91-105 (CDR1), 148-198 (CDR2) and 295-330 (CDR3) of SEQ ID NO:4.
14. Purified polypeptide that includes the amino acid sequence of SEQ ID NO:1.
15. Purified polypeptide that includes the amino acid sequence of SEQ ID NO:3.
16. Purified polypeptide that includes the amino acid sequence of SEQ ID NO:1 and/or SEQ ID NO:3.

17. Complementarity-determining regions (CDRs) or functional fragments thereof that comprise the amino acid sequences Ser-Gly-Asp-Lys-Leu-Gly-Asp-Lys-Tyr-Ala-Cys (CDR1), or Gln-Asp-Ser-Lys-Arg-Pro-Ser (CDR2), or Gln-Ala-Trp-Asp-Ser-Ser-Ile-Val-Val (CDR3) of SEQ ID NO:1 and/or Ser-Tyr-Ala-Met-His (CDR1) or Val-Ile-Ser-Tyr-Asp-Gly-Ser-Asn-Lys-Tyr-Tyr-Ala-Asp-Ser-Val-Lys-Gly (CDR2) or Asp-Arg-Leu-Ala-Val-Ala-Gly-Lys-Thr-Phe-Asp-Tyr (CDR3) SEQ ID NO:3
18. Purified polypeptide according to one of the preceding claims, **characterised in that the polypeptide can be generated according to the method claimed in claim 19**
19. Method for generating an antibody according to the hybridoma technology, **characterised in that the hybridoma cells are obtained by fusion of the heteromyeloma cells HAB-1 and their subclones with B-lymphocytes that have been taken from human spleens, lymph nodes or blood.**
20. Purified polypeptide according to one of claims 1, 17 and 19, **characterised in that the polypeptide is a monoclonal antibody.**
21. Purified polypeptide according to claim 20, **characterised in that the polypeptide is a human monoclonal antibody.**

22. Use of a polypeptide according to one of the preceding claims in combination with conventional adjuvants and/or carrier substances to prepare a drug having a fat-reducing effect.
23. Use of the polypeptide according to one of claims 1 to 22 for the preparation of a drug for reducing low density lipoproteins (LDL) and/or oxidized LDL (oxLDL) in the blood.
24. Use of the polypeptide according to one of claims 1 to 22 for the preparation of a drug for reducing LDL cholesterol and/or oxidized LDL cholesterol (oxLDL cholesterol).
25. Use of the polypeptide according to one of claims 1 to 22 for the preparation of a drug for the treatment of renal diseases.
26. Use of the polypeptide according to claim 25 for the preparation of a drug for the treatment of glomerulonecrosis.